

TITLE: GOLF CLUB HEAD

BACKGROUND OF THE INVENTION

(a) Field of the Invention

The present invention is related to a golf club head, and more
5 particularly to one that effectively increase the hitting distance by fully
upgrading the coefficient of resilience (C.O.R.) on the striking face.

(b) Description of the Prior Art:

In the beginning, a golf club head was first made of combination of
multiple precision castings, and later in recent years, the head is formed by
10 cold forging and rolling either made in an integral part or in combined
multiple sheets by welding. In general, the manufacturing technique of a
golf club head is advancing while it becomes diversified either in its physical
appearance or specification. To a golf player, how to drive the ball far and
accurate enough to approach the hole in less number of strokes is always
15 highly concerned, particularly so true for those pros who have better
command of striking accuracy and expect to send the ball farther without
affecting the striking stability. Therefore, making it happen justifies further
efforts by the manufacturers of golf clubs.

The most crucial factor in pursuing accurate and longer approaching
20 shots rests upon improving the resilience of the face of the golf club head.

So far the stainless steel has been the preferred material for the club head since it gives good elongation to survive cold forging and rolling processes together with other considerations including production cost and the technical level of the welding process. However, the resilience is comparatively poor due to
5 that the stainless steel is harder. The club manufacturers attempt to examine the feasibility of replacing the stainless with titanic alloy or other types of precious metal as the material for the striking face of a golf club head.

Whereas the properties including hardness and melting point of the titanic alloy or other types of precious metal differs from those of the material of the
10 club head to prevent a successful welding process. Therefore, a caulking process is used in the hope of achieving a tight binding between the club head and the striking face.

However, the caulking method for being subject to a highly demanded precision is not feasible in technical terms. Furthermore, the striking face is
15 vulnerable to fall off the head due to the violent striking with the ball after the swinging of the club. Therefore, substitute of the traditional stainless steel striking face fails commercial scale production. The attempts to seek solution from heterogeneous material for the striking face of the head of the club to increase the driving distance is frustrated for conspicuous technical
20 problems.

SUMMARY OF THE INVENTION

The primary purpose of the present invention is to provide an improved structure of a golf club head made of multiple stainless steel sheets to effectively drive the golf ball for a longer distance by significantly upgrading
5 the coefficient of resilience for the striking face, and more importantly, to make the commercial scale production feasible.

The foregoing object and summary provide only a brief introduction to the present invention. To fully appreciate these and other objects of the present invention as well as the invention itself, all of which will become
10 apparent to those skilled in the art, the following detailed description of the invention and the claims should be read in conjunction with the accompanying drawings. Throughout the specification and drawings identical reference numerals refer to identical or similar parts.

Many other advantages and features of the present invention will become
15 manifest to those versed in the art upon making reference to the detailed description and the accompanying sheets of drawings in which a preferred structural embodiment incorporating the principles of the present invention is shown by way of illustrative example.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective view of a preferred embodiment of the present invention.

Fig. 2 is a sectional view of the preferred embodiment of the present
5 invention.

Fig. 3 is a sectional view taking from line A-A in Fig. 2.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The following descriptions are of exemplary embodiments only, and are not intended to limit the scope, applicability or configuration of the invention in any way. Rather, the following description provides a convenient

5 illustration for implementing exemplary embodiments of the invention.

Various changes to the described embodiments may be made in the function and arrangement of the elements described without departing from the scope of the invention as set forth in the appended claims.

Referring to Fig. 1, a golf club head (1) of a preferred embodiment of
10 the present invention relates to a hollow body comprised of multiple sheets and includes a toe (11), a sole (12), a neck (13) and a face (14) made of metal materials of the prior art.

As illustrated in Figs. 2 and 3, a compression coil (15) is fixed to the back of the face (14). The compression coil (15) is made in a spiral form
15 provided with a proper number of coil and resilience and by compromising the striking direction. One end of the compression coil (15) is welded to the center of the back of the face (14) and another end of the compression coil (15) is fixed with a press bar (16) in proper length and extending to both sides from where it is connected to the compression coil (15). The press bar is welded
20 to the back of the face (14), thus for the compression coil (15) to hold against

and fix to where between the back of the face (14) and the press bar (16) while reserving a minor spacing of resilience among the compression coil (15) to rebound upon the face (14) to significantly upgrade the C.O.R. of the face (14).

5 At the instant when the face (14) hits the ball, the face will slightly give in a recess due to the impact to produce compression against the compression coil (15). After the impact, the compression coil (15) fast returns to its original status and in turn the face (14) produces a rebound on the ball to effectively increase the flying distance of the ball.

10 By holding against and fixing to the back of the face (14) the compression coil (15) to produce a fast rebound for the face (14) from the recess created at the moment of hitting the ball, thus to sufficiently upgrade the C.O.R. of the face (14), and in turn to effectively increase the driving distance of the ball. Furthermore, by adjusting the suppression force exercised by the
15 press bar (16) on the compression coil, the resilient spacing among the compression coil (15) can be altered to achieve the optimal resilient for the face (14) for fully utilization of the practical value of the head of the club.

 It will be understood that each of the elements described above, or two or more together may also find a useful application in other types of methods
20 differing from the type described above.

While certain novel features of this invention have been shown and described and are pointed out in the annexed claim, it is not intended to be limited to the details above, since it will be understood that various omissions, modifications, substitutions and changes in the forms and details of the device
5 illustrated and in its operation can be made by those skilled in the art without departing in any way from the spirit of the present invention.